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ABSTRACT

Teacher researchers may be the essential link between the philosophy and training of higher education and the grass roots implementation at the public school level. The Teacher-Researcher (T-R) Institute has the potential of providing a catalyst for role change and a channel for research in action. This paper describes the merits and defaults of the Baltimore County (Maryland) T-R program from the classroom teacher's point of view. It also shows the perceptions of a group from the Maryland Writing Project. Teacher-researchers attend a 1-week workshop at the T-R Institute to prepare manuscripts describing classroom investigations for publication in education journals. To determine the impact of the T-R Institute on professional growth, a 10-item questionnaire requiring handwritten responses was developed and distributed. A follow-up evaluation was conducted via telephone interviews. An instrument developed from the outcomes of the two surveys was designed to measure attitudes toward the program. Responses to the questionnaire are discussed and briefly analyzed. The findings indicated similar positive attitudes and opinions both from the T-R participants and the more diverse Maryland Writing Project. (JD)

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TEACHERS AS RESEARCHERS:

ATTITUDES, OPINIONS AND PERCEPTIONS

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Introduction

The teacher-researcher movement has been in existence for at least 30 years. Most recently, teacher-researcher programs have been supported by both institutions of higher learning and public school systems. Among the K-12 teachers, this trend is a staff development program whereby classroom teachers are establishing expertise in teaching and curriculum development. Although the organization and structure of teacher-researcher groups may vary across the nation, one major focus prevails: to expand the teacher's role as an inquirer about teaching and learning via systematic classroom research.

Through individual and/or collaborative efforts, teachers need to assess their effectiveness in the classroom and bring about significant changes. Also known as action research, teacher-research requires participation in critical thinking and problem solving concerning classroom practices. Unlike traditional educational research with its empirical designs and statistically significant findings, action research does not have to be based on a sampling theory. Practitioners, not researchers, cite the problems and are fully involved in the classroom investigations. In the main, they are concerned only with generalizations of their one study. Flexible designs allow hypotheses and methods to change as the data are collected. Currently, teacher research is judged on its clarity of language, its organizational consistency, and its "goodness of fit" within the teacher community in terms of definition of problems and findings (Myers, 1985).

The teacher-researcher movement is a necessary bond between theory and practice. Using an organized approach, teachers are able to field-test instructional methods, evaluate student attitudes, and diagnose pupil needs. General summaries of the findings have implications for other teachers, administrators, school systems, and teacher education programs alike. For example, school district assessments could include case studies from teacher-researchers in addition to summarizing and evaluating standardized test scores.

An offshoot of teacher empowerment, developing a research tradition among classroom teachers is one way to shift more responsibility for instructional expertise to the teachers

themselves. Educational leaders are always striving to find ways to help teachers continue to grow intellectually and emotionally. Teachers who remain challenged and satisfied in the classroom contribute much more towards a positive school climate and environment. The teacher-researcher concept is an innovative program that provides dynamic opportunities for intellectual stimulation and scholarly implementation. Therefore, an investigation of the attitudes, opinions, and perceptions of participating teacher-researchers will help determine the impact of action research on the professional growth and development of classroom teachers.

Review of Literature

The professionalism of teachers can be enhanced by building a knowledge and theory base for educational practice by increasing the autonomy of teachers (Perry-Sheldon, 1987). The teacher-researcher concept actively addresses both of these issues.

Teacher-research has been described as "any study conducted by teachers of their school system, school, class, groups of students, or one student, either collaboratively or individually" (Myers, 1985). In an effort to define an important role, K-12 classroom teachers are encouraged to conduct research to explain why some lessons work and others do not. The most common type of research implemented by teacher-researchers is "qualitative, hypothesis-raising, and descriptive" (Mohr, 1987). In collaboration with other teachers, methodologies may be extended to determine patterns and more conclusive evidences. The most difficult and frustrating part of classroom research is stating the problem. A well-defined question is the foundation of a research inquiry and must be consistent with the researcher's basic assumptions (Odell, 1976). Jacullo-Noto (1984) notes two basic differences from traditional educational research: 1) lack of control of the many variables in classroom settings; and 2) research findings are communicated from teacher to teacher. In addition, action research is recognized as time-consuming work that must be conducted in

stages (Mohr, 1987). These and other reasons require "a different set of norms appropriate to the inter est and working conditions of K-12 classroom teachers" (Myers, 1985). For example, research activities must not disrupt the instructional process (Tikunoff, 1983). Myers (1985) has stated, "Teachers who do teacher-research will soon discover how difficult this whole business can be." Additional pressures of more work and frustration accompany the teacher-researcher experience. Presenting a degree of risk, there are increased chances of mistakes and false starts. Teachers often feel uncertain of the "right" question or the "right" solution (Odell, 1976). In general, K-12 classroom teachers are not promoted, paid, or commended for doing research at this time (Myers, 1985).

Limitations and concerns notwithstanding, teacher research provides genuine opportinities for intellectual, social, and emotional growth (Jacullo-Noto, 1984). Topics of inquiry represent problems/concerns of the classroom teacher which help develop their problem-solving capacity using research methodology. According to Mohr (1987), positive effects occur as educators begin to grow in their complementary roles as teachers and researchers:

1) Teaching and research become unified; hence, the research plans become lesson plans.
2) Teaching/learning is a process, not a routine.
3) Teachers receive constant response to a new teaching idea.
4) Teacher-researchers gain more self-assurance and courage to change.

Tikunoff (1983) delineates 10 ways that teacher-researcher programs are vehicles for professional growth:

1) Opportunity for reflection upon classrooms.
2) Problem definition (problem solving).
3) Formal inquiry spills over into informal inquiry.
4) Experience gained in conducting formal inquiry.
5) Greater impact by doing research than merely reading it.
6) Compiling findings which can be applied immediately in own classroom.

7) Ownership of inquiry.
8) Expansion of inquiry to a whole school through the process of educational research and development.
9) Increase knowledge and skills.
10) Enhance self esteem/morale of teachers due to increased ability to understand research process.

Research becomes an important tool in the work of a teacher-researcher (Jacullo-Noto, 1984). Using research skills gives experienced teachers the encouragement to opperate above the average level of effort in their classrooms. Lightfoot (1983) summarizes the teacher-researcher experience as a strategy which increases "their confidence, risk-taking, and creativity in approaching pedagogical tasks."

The benefits of a teacher-researcher program as a staff development activity have been evaluated through the Interactive Research and Development project at Columbia University. The Teacher Center assessment consisted of 2 goals:

1) To determine the degree of success with which individuals with different backgrounds and professional orientation could fill the roles.
2) To analyze the professional growth that took place in the teacher participants as a result of the experience. (Jacullo-Noto, 1984)

The Teacher Center team identified the 3R's of job satisfaction - reinforcement, recognition, and respect - as essential elements of the teacher-researcher experience. As teachers learn to be involved in research, they receive reinforcement from both adults and students. Recognition and respect are gained from fellow teachers, administrators, and parents as a result of speaking at faculty meetings, PTAs, and national conferences.

Feedback from the participants produced interesting responses:

1) The project was described as "an unmatched growth opportunity for us all."
2) Teachers reported they had become researchers.
3) Pride felt in belonging to the team was expressed.
4) A greater sense of confidence in their own ability developed.

5) Teachers had a strong desire to exchange ideas with colleagues in wider audiences.
6) Many reported "a powerful understanding of a problem-solving stance and a new appreciation of the concept of teaching and learning." (Jacullo-Noto, 1984)

The most dramatic outcome, however, was the realization that teacher-researchers can be process-oriented rather than product-oriented (Jacullo-Noto, 1984). For all participants, teacher-researcher was a powerful learning experience as educators respond to a new sense of reinforcement, recognition, and respect. More teachers need to be actively engaged in the research process to increase the usefulness of the findings. To this end, the participants were willing and eager to be responsible for producing workshops and to be peer staff developers.

The notion of "teacher-as-researcher" has begun to bridge the gap between classroom teachers and professional researchers (Heath, 1982). Viewing research as the "science" in the "art" of teaching, educators are becoming producers rather than consumers of investigations and results. By questioning, observing, documenting, and analyzing, teacher-researchers transform their classrooms into "learning communities". This approach helps each practitioner accept or reject the findings of quantitative, experiemental studies in terms of individual goals and objectives. Disseminating research findings through summaries, publications, and/or presentations, teacher-researchers can stimulate others to be involved in similar classroom inquiries. A healthy synthesis of collective data and implications from action research is the genesis of meaningful quantitative studies.

Method

This research study was designed to determine the attitudes, opinions, and perceptions of experienced teacher-researchers. To achieve the goal of teacher-researcher on the local school district level, The Office of Writing Across the Curriculum in Baltimore

County Schools (Maryland) organized a Teacher-Researcher Institute in Summer 1987. Teacher-researchers attend a one week workshop to prepare manuscripts describing classroom investigations for publication in educational journals. To determine the impact of the Teacher-Researcher Institute on professional growth, a ten item questionnaire requiring handwritten responses was developed. This was distributed in Fall 1989. A complete compilation of the 20 responses was made.

In January 1990, a follow-up evaluation took place via telephone interviews consisting of 12 questions each. These items addressed the research process in depth. Twenty-one respondents participated. The oral responses were recorded in note form by the researcher as each teacher-researcher talked. The notes were read back to each respondent for clarity and confirmation of thought. All ideas/responses were collected and analyzed. An evaluation of the Teacher-Researcher Institute was needed to specify the affects as well as the effects. A 3 year Institute allows ample time and experience to provide background to adequately assess the role of teacher-researcher.

Using the outcome of the two surveys, a Likert Type Scale was developed from the items and responses found on each instrument. This attitude scale, which lends itself more towards a quantitative data base, combines the predominant professional growth and research process aspects of the teacher-researcher movement. This scale was recently piloted with a sample group of 17 teacher-researchers from the Maryland Writing Project (MWP) at Towson State University located in Baltimore, Maryland. The respondents are part of the Teacher-Researcher Institute of MWP, consisting of public and private K-12 classroom teachers as well as instructors from local community colleges, Towson State University, and other Maryland colleges. In general, this group represents a blend of higher education and public school educators from a wider spectrum than one public school system. A summary of the 17 responses was compiled. This allowed a preliminary comparison with the responses from the Baltimore County Teacher-Researcher Institute. The intrinsic values

as well as the developmental process of redefining roles as a teacher-researcher can be partially evaluated through self-study assessments.

Data Source and Analysis

A two-pronged approach was designed to evaluate the attitudes, opinions, and perceptions of the educators working in the Teacher-Researcher Institute of Baltimore County Public Schools (Maryland) in Fall 1989. The self-assessment began with a ten item questionnaire elicting written responses from 20 participants following the third annual Teacher-Researcher Institute. The respondents were K-12 teacher-researchers representing all subject areas in elementary, middle school, and high school. Peer response to the wriiten data was given by another Teacher-Researcher and by the Professional Research Librarian of Baltimore County Schools.

Question 1, "In your opinion, what is a taecher-researcher?", was developed to assess each teacher's perception in their role as a teacher-researcher. Key words such as: inquiries; classroom research; teaching/learning; systematic; observations; collecting data; findings; problem solving; and writing were expected within the responses.

Adequate statements which specifically defined the role of a teacher-researcher were submitted by 18 out of 20 respondents. It was anticipated that a large portion of this group would list "writing" as a major thrust of being a teacher-researcher. This is because a great expectation of the Baltimore County T-R Institute was for each participant to publish an article on their inquiry in a national journal. Only 6 of the 20 indicated writing as part of their role. Most of the respondents related more to the process than a finished product.

Question 2, "What motivated you to become a teacher-researcher?" was aimed at identifying the basic reasons why teachers choose to take on the extra burden of being a teacher-researcher. No specific key words were established, as it was intended as a "free-thinking" item.

noted: "been published and even made money on an article"; "gave presentations"; and "was asked to be a Research Consultant for a Maryland State Grant." This group shows a wide range of professional growth both as individuals and as a group since the inception of the Institute in 1987.

Question 5, "Have you benefitted personally from your role as a teacher-researcher? If so, in what way (ways)?", was included as another free thinking item to explore the range of personal benefits to this particular group.

The responses of 18 of the 10 of the teacher-researchers indicate very positive personal benefits from this experience. Only one person was adamant, stating teacher-researcher meant "more work". The use of words such as "proud", "satisfaction", "friends", and stimulation" indicate the positive effects of a professional support group which offers reinforcement, recognition, and respect (the 3R's again), along with social benefits. Although the question focuses on "personal", close scrutiny of responses show a defined integrarion with professional benefits as well.

Question 6, "Have you participated in wider opportunities because of being a teacher-ressearcher? If yes, please list them.", was intended to determine the extent of professional activities engaged in as a result of becoming a T-R. It was anticipated that descriptors such as "published", "presented", "conferences", "course", "committee" would constitute the language of this response.

Although 5 of the 20 respondents did not contribute positive remarks to this question, the other 15 showed evidences of participation in wider opportunities. Several teacher-researchers have published articles, while others have made presentations at the school level, or at local, regional, or national conferences. A small number are teaching courses. One has an opportunity as a research consultant for a state grant, and another is serving on a state committee. Several teacher-researchers appear to be taking advantage of the Teacher Incentive Program offered ib our County to advance themselves professionally by participating in

Although a wide variety of reasons are given by these 20 respondents, it can be easily inferred that most teachers are highly motivated, analytical, innovative, enjoy a challenge, and seek professional growth and development. A high degree of enthusiasm for teaching and learning as well as a focus on scholarship and sharing findings prevails.

Question 3, "Has being a T-R affected your teaching?", was included to elicit responses which show evidences of improved teaching or classroom management as well as indicators of professional growth.

In addition to the testimonies concerning new ideas and improvement of teaching in general, there is a thread of increased confidence, the taking of responsibility for decisions (teacher empowerment), and a focus on consistent evaluation of teaching/ learning woven within these responses. It is easy to envision the enthusiastic positive attitudes and experiences within each classroom and sense the strength and professionalism of each individual teacher-researcher.

Question 4, "Do you feel you have grown professionally from your teacher-researcher experience? Please explain.", was selected to determine the depth and breadth of professional activities and wider opportunities encountered because of the committment to the teacher-researcher concept.

These responses clearly identify the 3R's of job satisfaction delineated in the Jacullo-Noto article entitled "Interactive Research and Development - Partners in Craft" - reinforcement, recognition, andrespect. In examining each response, at least one of the 3R's is evident, and sometimes 2 or 3. It is refreshing to read the actual descriptors "recognition" and "respect" in the text without prompting the respondents with the 3R's. This seems to indicate that the Baltimore County program is "on target" with professional evaluators of staff development programs. According to these responses, professional growth among this group of teacher-researchers include both intrinsic and extrinsic values and rewards. Intrinsically, the educators report values such as "rekindled my desire to teach" and "have more confidence in my ideas". Tangible extrinsic rewards were

more global activities.

Question 7 was developed to determine the effect of the findings of T-R on educational decisions and/or policies. Speciically, the question was phrased, "Do you feel the teacher-researcher concept affects the educational philosophy and/or program in your school? in the school system? in the broader field of education? Please elaborate." It is expected that teachers will make decisions concerning their own teaching and their own classroom based on teacher-researcher efforts. In the main, respondents confirmed the idea of evaluation/improvement in their own individual classrooms. Generally, it was felt that there is potential for widespread influence, however, the current status overall is that "the concept has limited effect on the school system as a whole."

Question 8 asked: "Describe what you like best about being a T-R". The expected descriptors include: "share"; "peer response"; "friendships"; "support"; and "impact on students". As expected, this group identified the interaction and support of our T-R Institute participants as the best part of being a T-R. A close second was the impact on the students. Only 2 respondents referred to the research process: "being the decision maker" and "planning and writing the results". It appears that the T-R concept supplies friendship and support, as well as decreasing the feeling of isolation so keenly felt by most teachers.

Question 9, "What do you like the least about teacher-researchers?", was included to compare and contrast with Question 8. The time factor was expected to be reported as the overwhelming disadvantage to teacher-researchers. Twelve respondents were straightforward about the lack of time. Three people felt the pay for the Institute should be higher. No one mentioned a "least" concerning the process or the outcomes. Lack of time is cited as the predominate negative factor.

The last question, Question 10, "Would you recommend teacher-researcher to colleagues as a professional growth activity? Why or why not?" was a summary item to capture a final attitude or opinion from each respondent. No descriptors were selected because the

question is open-ended. Eighteen of the 20 respondents emphatically stated "yes" to recommending T-R to others. A wide variety of reasons were given. Some qualification was placed on a few affirmative answers such as: "only if they were extremely interested in a strategy" or "I don't know alot of people who would care enough to do it."

Table 1, on the next page, summarizes the results graphically.

The teacher-researcher questionnaire, as a group, proves that the participants view the role of teacher-researcher in a positive perspective. Enthusiastically, the group supports each other as they gain both professional and personal attributes and opportunities from the experience. Although the activity is time-consuming, the group feels the rewards and wider activities make it worthwhile. They feel they are improving their teaching while creating a potential force for change in educational decisions. Most importantly, they wish to see the concept expand to other teachers by recommending it to other like-minded educators.

The second assessment took place via telephone interviews of 21 participants 5 months after the written questionnaire was distributed. The focus of these questions was the aspect of the research process.

Question 1, "Are you currently working on a T-R topic?", was asked to determine if teachers were following through with the concept without direct contact or support of the group. Fourteen of the 21 respondents indicated they were currently working on a wide variety of topics.

Question 2, "What do you find to be the easiest part of the research process?", was the first inquiry into the process itself. The majority of respondents said that collecting the data was the easiest part of the teacher-researcher process.

In contrast, Question 3 addressed the most difficult part of the research process. Most respondents thought defining the question and interpreting the data were the most difficult part of the research process. The time factor was also stated as a problem.

Question 4 queried if findings were relevant to the teaching. 17 out of 21 said "yes" it was relevant. When asked if changes

TABLE 1 - SUMMARY TABLE OF QUESTIONNAIRE ITEM RESPONSES

N = 20

Item #	Main Idea of Item	Researcher's Descriptors	Respondent's Descriptors
1	Definition of Teacher-Researcher	Writing Process	Writing (6) No Response (1) Process (13)
2	Motivation for Teacher-Researcher	None	Process (5) Challenge (5) Sharing (4) No response (1) Encouragement (5)
3	How T-R Affects Teaching	Improved Teaching Prof. Growth	Imp. Teach. (11) No Resp. (1) Prof. Growth (8)
4	Identification of Prof. Growth Activities	Recognition Respect Reinforcement	Recognition (3) All 3 (5) Respect (2) No response (1) Reinforcement (9)
5	Personal Benefits of Teacher-Researcher	None	Group (11) No response (1) Confidence (7) More Wk. (1)
6	Wider Opportunities Due to Teacher-Researcher	Published Presented Conferences Courses Committee	Published (5) Presented (3) Conferences (3) Courses (2) Committees (2) None (3) No response (2)
7	Effect of T-R on Ed. Policy/Decisions	Classrooms School School System Potential None	Classrooms (4) Potential (7) School System (1) None (3) No response (5)
8	Like Best About Teacher-Researcher	Friendship Support Share Peer Response Impact on Students/Teaching	Friendship (2) Share (5) Support (5) No response (1) Impact (4) Peer Response (2) Miscellaneous (1)
9	Like Least About Teacher-Researcher	Time Factor	Time (12) No response (1) Pay (2) Miscellaneous (5)
10	Recommend T-R To Others	None	Yes (19) No response (1)

were made accordingly, 16 respondents said they had made changes.

The fifth question solicited the type of data collected. Student samples were cited as data collected most, with field notes and reflective notes (personal observations) next. Some teachers used video tapes, logs, dialogues, interviews, and pre/post test scores.

Question 6 asked teachers if they increased in teaching skills, research skills, both or none. 11 out of 21 thought both skills increased, with a split on teaching and researching skills singly.

The next question investigated how teacher-researchers plan to share their findings. Most teachers planned to write articles for publication, do networking, and give presentations. When asked about the idea of a local inservice or workshop to disseminate information, 13 teachers thought it was a good idea.

The last question asked opinions on replication of the inquiry. Sixteen teacher-researchers would like to have their study replicated. When asked if they had ever collaborated on research with other educators, 7 indicated they either already had, or were in the process of establishing collaborative relationships. All but one said they would be interested in collaborating in a team effort at a future time.

Table 2, on the next page, summarizes these results.

The telephone interview shows that the teacher-researcher effort is continuing even without formal support or organization. This is probably because these teachers find the T-R approach relevant to their teaching and have integrated the research process into their routines. Sharing via networking, presentations, and/or publication is a major objective. Although this group has functioned as individual teacher-rseearchers, their interest and confidence level has increased to the point of collaboration. As evidenced in the review of literature, developing the question is seen as the most difficult part of the process. Collecting data is the easiest part as it can be done within the regular classroom. Student samples and teacher notes create the greatest volume of data in action research. Great interest is shown in the idea of an inservice day or workshop to generate interest among other teachers to join

TABLE 2 - SUMMARY TABLE OF TELEPHONE INTERVIEW ITEM RESPONSES

N = 21

Item #	Main Idea of Item	Researcher's Descriptors	Respondent's Descriptors
1	Current T-R Topic?	None	Yes (14) No (7)
2	Easiest Part of the Research Process	Question Data Collecting Analyzing Summary	Question (5) Data Collecting (5) Miscellaneous (9) No Response (2)
3	Most Difficult Part of Research Process	Question Data Collecting Analyzing Summary	Question (3) Time (6) Miscellaneous (10) No Response (2)
4	Are Findings Relevant?	None	Yes (18) No (1) No response (2)
	Changes made?	None	Yes (16) No response (2) Miscellaneous (3)
5	Increase Teaching, Researching Skills, Both or None?	Both	Teaching (5) Both (11) Researching (3) No response (2)
6	How To Share Findings	Articles Presentations Networking	Articles (15) Presentations (2) Networking (2) No Response (2)
7	Inservice/Workshop For Info. Dissemination	None	Yes (13) No Response (8)
8	Replication of Study?	None	Yes (16) No Response (2) No (3)
	Ever Collaborated With Research Inquiry?	None	Yes (7) No (14)
	Future Collaboration Desired?	None	Yes (16) No Response (3) No (2)

the ranks of teacher-researchers. With this vibrant core of teacher-researchers across the curriculum in Baltimore County Schools, it is evident that the movement is "alive and well" and ready to expand.

The Likert Scale consists of 20 statements which elicit respondent reactions according to Strongly Agree, Agree, Undecided, Disagree, or Strongly Disagree. This instrument was piloted with Teacher-Researchers currently in the Maryland Writing Project T-R Institute at Towson State University. Statement #1 is the definition of teacher-researcher extracted from Miles Myers in the Review of Literature. 82% of the respondents agree with this definition. Item #2 addresses publishing as a focus for teacher-researchers. 15 of the 17 agree or strongly agree. Statement #3 assesses opinions on the need to strongly understand and appreciate educational research to be involved in the teacher-researcher experience. Ten of the 17 indicate this is true. The large majority of the MWP respondents, almost 90%, feel that T-R provides the needed 3R's for job satisfaction (reinforcement, recognition, and respect) as listed in Statement #4. Fourteen of the 17 feel that being a T-R increases confidence in handling professional problems, as indicated in Statement #5. While 12 of the 17 feel T-R increases wider opportunities, 4 were undecided about that advantage as stated in Item #6. When addressing the idea of teacher-researchers reading more journals in Statement #7, 10 of the 17 either agree or strongly agree. 100% of this sample group believe that the teacher-researcher movement has the potential to impact on classroom management and teaching as stated in Item #8. Statement #9 is closely tied to Statement #8 in that it evaluates T-R opinions on influences beyond the classroom. 15 of the 17 think this is true. The next item, Statement #10, addresses the idea of teacher-researcher being introduced in teacher education. Although 12 of the 17 agree or strongly agree, 2 are undecided and 5 disagree. Statement #11 defines "being the decision-maker" as the most rewarding part of the T-R experience. While 6 respondents agree, 8 of them disagree, while 3 are undecided. Lack of time is stated in Item #12 as the greatest limitation to the teacher-researcher effort. Thirteen of the 17

either agree or strongly agree. Statement #13 indicates that the T-R process interrupts the regular routine. Almost 80% either disagrees or strongly disagrees. The next item,#14, states that T-R is self-satisfying and enhances teaching. Sixteen of the 17 either agree or strongly agree, with only 1 respondent indicating strongly disagree. Statement #15 cites data collecting as the easiest part of the research process. While 3 agree and 4 are undecided, 10 of the 17 disagree or strongly disagree. The review of literature identifies the question or problem inquiry as the most difficult and frustrating part of classroom research. When addressing this concept in Statement #16, respondents were diverse. Eight agree, 6 were undecided, and 3 disagree. Statement #17 advocates the use of quantitative data in teacher-researcher summary reports. 15 of the 17 disagree or strongly disagree. 100% of the respondents agree with Statement #18 which indicates that both teaching and research skills are enhanced through the T-R process. When addressing the idea of a professional study day workshop or inservice conference to share T-R findings, 15 of the 17 agree or strongly agree. The last statement cites collaboration as the best way to implement the teacher-researcher process. Twelve of the 17 agree, while 5 are undecided.

Table 3 summarizes the results.

A brief comparison of the Maryland Writing Project respondents with the Baltimore County Teacher-Researcher group shows a large measure of agreement when considering Teacher-Researcher as a professional growth activity. To be specific, items dealing with the teacher-researcher definition, the 3 R's of job satisfaction, increased confidence, potential influence, improvement of both teaching and research skills, and inservice workshops/conferences for disseminating information are consistently aligned. The MWP group seems to indicate a stronger focus onpublishing as a reason for being a Teacher-Researcher. Perhaps this reflects the expectation of higher education professionals to "publish or perish". Time is considered a limiting factor by both groups; however, the public school T-R respondents, as a whole, tend to emphasize it more. The

TABLE 3 - RESPONSES TO LIKERT TYPE SCALE

N = 17

Topic of Statement Item	# Strongly Agree	# Agree	# Undecided	# Disagree	# Strongly Disagree	# No Response	Major Pattern of Response
1) T-R Definition	12	2	2	0	0	1	Strongly Agree/ Agree 14/17
2) Publishing - Reason for T-R	6	9	0	2	0		Strongly Agree/ Agree 15/17
3) Understanding of Ed. Research	7	3	5	2	0		Strongly Agree/ Agree 10/17
4) 3R's Provided	12	3	2	0	0		Strongly Agree/ Agree 15/17
5) T-R Increased Confidence	11	3	2	0	0	1	Strongly Agree/ Agree 14/17
6) T-R Increased Wider Opport.	5	7	4	0	0	1	Strongly Agree/ Agree 12/17
7) T-R Increase Journ. Reading	5	5	4	2	1		Strongly Agree/ Agree 10/17
8) T-R Potential Influence	6	11	0	0	0		Strongly Agree/ Agree 17/17
9) T-R Influence Beyond Classrm.	6	9	2	0	0		Strongly Agree/ Agree 15/17
10) T-R Teacher Ed.	5	7	2	5	0		Strongly Agree/ Agree 12/17
11) T-R Decision-maker	0	6	3	8	0		Agree 6/17 Disagree 8/17

(continued)

TABLE 3 - RESPONSES TO LIKERT TYPE SCALE (cont.)

N = 17

Topic of Statement Item	# Strongly Agree	# Agree	# Undecided	# Disagree	# Strongly Disagree	# No Response	Major Pattern of Response
12) T-R Time	11	2	1	3	0		Strongly Agree/ Agree 13/17
13) T-R Disrupts Routine	1	2	1	9	4		Disagree/Strongly Disagree 13/17
14) T-R Improves Teaching	10	6	0	0	1		Strongly Agree/ Agree 16/17
15) Data Collect. Easy	1	2	4	9	1		Disagree/Strongly Disagree 10/17
16) Define ? Difficult	3	5	6	3	0		Strongly Agree/ Agree 8/17 Undecided 6/17 Disagree 3/17
17) T-R Use Quant. Data	1	0	1	11	4		Disagree/Strongly Disagree 15/17
18) T-R Increase Teach/research skills	13	4	0	0	0		Strongly Agree/ Agree 17/17
19) Inser./ Prof Workshop	11	4	2	0	0		Strongly Agree/ Agree 15/17
20) T-R Collabor.	4	8	5	0	0		Strongly Agree/ Agree 12/17 Undecided 5/17

Baltimore County T-Rs feel that the teacher-researcher experience affords ample wider opportunities, while the MWP respondents do not share the same degree of intensity. Both groups seem to be diverse when identifying the easiest and most difficult part of the research process. The MWP group indicates that data collecting is not the easiest part of the research process. The Baltimore County T-Rs feel it is more easy than hard by comparison. Perhaps with further teacher-researcher experience, the respondents will be able to be more definitive. The MWP group clearly wishes to keep teacher-researcher summaries qualitative and naturalistic as opposed to quantitative. In all, both the Baltimore County and the Maryland Writing Project survey findings indicate positive responses in assessing staff development and research process ideas in terms of the teacher-researcher experience.

Importance of the Study

Teacher-researchers may be the essential link between the philosophy and training of higher education and the "grass roots" implementation at the public school level. A Teacher-Researcher Institute has the potential of providing a catalyst for role change and a channel for research in action. This study has shown merits and defaults of the Baltimore County T-R program from the classroom teacher's point of view. It has also shown the perceptions of a more diverse group from the Maryland Writing Project. Both results indicate similar positive attitudes and opinions. These findings will be shared first and foremost with each set of respondents themselves. The Directors of the two Teacher-Researcher Institutes as well as administrators in the Offices of Curriculum and Instruction (Baltimore County) will also be interested in the summary.

The stage is set for further self-study of the attitudes, perceptions, and opinions of teacher-researchers. Two separate instruments, a written questionnaire and telephone interview

items, were developed to elicit relevant feedback. From the items and responses on both assessments, a Likert Type Scale was developed as an alternative instrument for future evaluations. Plans are underway to seek permission to assess other local T-R groups in Maryland to gain feedback for staff developers and to compare results. Through the development of this study, a choice or combination of evaluation instruments will be available. The results of this and future studies may be of interest to other teacher-researcher groups, directors of teacher preparation programs, and/or state departments of education.

The practitioner's voice should be heard. Strengths and weaknesses as well as the challenge and rewards which accompany role change need to be addressed. The time has come to examine the length and breadth of the teacher-researcher concept - unequivocally, a unique professional growth experience.

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